

# LanMarin® Cat 5E Arctic Grade

**AWG 23/7**  
**S/FTP**  
**UV resistant**  
**SHF2**  
**RMRS**

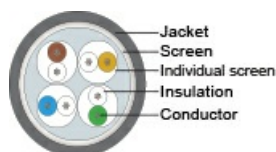
## Application

Flexible LAN cable. Designed for ship- and offshore applications in arctic environments. Tested for cold bend and impact.



## Construction

|                         |  |
|-------------------------|--|
| Conductor               | Stranded plain Cu AWG 23/7   |
| Insulation              | Foam PE  |
| No. of pairs            | 4  |
| Colour code             | pair 1: blue - white/blue<br>pair 2: orange - white/orange<br>pair 3: green - white/green<br>pair 4: brown - white/brown |
| Individual Screen pairs | Al-/polyester tape   |
| Overall Screen          | Tinned Cu-braid ≥60%   |
| Jacket                  | Grey Arctic grade SHF2   |
| O.D.                    | 9,0 ± 0,4 [mm]   |
| Weight                  | 100 [kg/km]  |
| Jacket marking          | NEK Kabel - LanMarin® Cat 5E S/FTP 4x2xAWG23/7 SHF2 Arctic Grade - RS - IEC 60332-3-22A - lot - DD/MM/YY + meter         |



## Specifications

|                            |  |
|----------------------------|--|
| Operating temperature      | -55 – +80 [°C]                         |
| Temperature @ installation | -25 – +60 [°C]                         |
| Characteristic impedance   | 100±5 [Ω @ 100 MHz]                    |
| Conductor DC resistance    | ≤73,2 [Ω/km]                           |
| Brittle temperature        | -55 [°C]                               |
| Insulation resistance      | ≥5000 [MΩ x km] (IEC 61156-5)          |
| Test voltage               | 1 [kV-1min.]                           |
| Capacitance                | at 1kHz                                |
| Capacitance unbalance      | Pair to ground: ≤160 [pF/100m at 1kHz] |
| Min. bending radius        | 10 [x outer diam]                      |



## Norms

|  |   |
|--|---|
| Halogenfree, max content corrosive and toxic gases | IEC 60754-1, 2  |
| Material properties, insulation and sheath         | IEC 60092-360   |
| Transmission performance                           | IEC 61156-5   |
| Cold bend and impact                               | Cold bend CSA 22.2 @ -55°C Cold impact CSA 22.2 @ -55°C |
| Flame resistance                                   | IEC 60332-3-22 Cat.A                                    |
| Flame retardant                                    | IEC 60332-1-2   |
| Oil and fuel, hydrocarbons resistant               | IEC 60811-3-1 IRM 902 100°C x 24h                       |
| Smoke emission                                     | IEC 61034-2 ≥60%  |
| UV-resistant                                       | UL 1581 (300H)  |
| Certification                                      | RS  |



|          |         |
|----------|---------|
| Part No. | 1089614 |
|----------|---------|

## Attenuation

| Frequency (MHz) | Attenuation Max. (dB/100m) | Return Loss (dB/100m) | NEXT (dB/100m) | PS-NEXT (dB/100m) |
|-----------------|----------------------------|-----------------------|----------------|-------------------|
| 4               | 4,08                       | 23,0                  | 56,3           | 63,3              |
| 8               | 5,78                       | 24,5                  | 51,8           | 58,8              |
| 10              | 6,48                       | 25,0                  | 50,3           | 57,3              |
| 16              | 8,26                       | 25,0                  | 47,2           | 54,2              |
| 20              | 9,28                       | 25,0                  | 58,7           | 52,8              |
| 25              | 10,43                      | 24,2                  | 44,3           | 51,3              |
| 31,25           | 11,73                      | 23,6                  | 42,9           | 49,9              |
| 62,5            | 17,00                      | 21,5                  | 38,4           | 45,4              |
| 100             | 21,28                      | 20,1                  | 35,3           | 42,3              |